

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/755,286	COLDEWEY, DIRK	
	Examiner	Art Unit	
	Harold E. Dodds, Jr.	2168	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 July 2005.
2. ☒ The allowed claim(s) is/are 1-7,9, and 11-18 (renumbered 1-16).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>120205</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                                  |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Dirk Coldewey on 1 December 2005.

3. The application has been amended as follows:

On line 2 of claim 1, **insert of a steady state loop after** "traversal".

On lines 12 and 13 of claim 1, delete ~~said prefetch distance being determined by the programmer, computed during prior art, or by a compiler,~~

On line 1 of claim 15, **replace The with A before** "method".

On line 7 of claim 15, **replace ~~can be~~ with is after** "traversal".

### REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance: The Examiner finds that the amended claims in the revised Specification, Claims, and Drawings filed on 27 July 2005 for independent claim 1 concerning a method for creating a linked list data structure to which prefetching can be applied in order to minimize the number cache misses endured during traversal persuasive as applied to independent claim 1. The prior art Pieper et al. (U.S. Patent No. 6,675,374), Huang et al. (U.S. Patent No. 6,009,265), and Knittel et al. (U.S. Patent No. 6,266,733) neither renders obvious nor anticipates the combination of recited elements in light of claim 1.

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In particular, no prior art has been found that teaches the limitation "additions to the head of the list are added by decreasing the list head index to  $H - 1$  modulo  $P$  and adding new nodes to the head of the list indeed by the thus updated value of the head index".

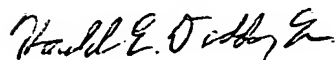
5. The Examiner finds that the amended claims in the revised Specification, Claims, and Drawings filed on 27 July 2005 for independent claim 15 concerning a method of traversing a single tree by creating a forest of subtrees persuasive as applied to independent claim 15. The prior art Pieper et al. (U.S. Patent No. 6,675,374), Knittel et al. (U.S. Patent No. 6,266,733), and Bjork ("Binary Trees") neither renders obvious nor anticipates the combination of recited elements in light of claim 1. In particular, no prior art has been found that teaches the limitation "discontinuing the level-order traversal when a number of subtrees sufficient for effective software pipelined traversal has been achieved, the aforementioned array of pointers thereby containing the pointers to the root of the trees of a forest to which software pipelined traversal can be applied".

### CONCLUSION


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold E. Dodds, Jr. whose telephone number is (571)-272-4110. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Harold E. Dodds, Jr.  
Patent Examiner  
December 2, 2005



G. ROBINSON  
PATENT EXAMINER